ILLINOIS BUSINESS REVIEW

A MONTHLY SUMMARY OF BUSINESS CONDITIONS FOR ILLINOIS

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HIGHLIGHTS OF BUSINESS IN MAY

Business activity showed little change in May. Further increases in consumer prices, reflecting earlier advances in wholesale prices, probably carried personal income to higher levels, but physical volume of goods and services produced may have declined slightly again.

Steel production in May ran behind April, 1957, as well as May last year. Electric power output and automobile production declined, although both were above their levels for May, 1956. Petroleum output, one of the few production series that have stayed above 1956 levels, was well below the March peak. Carloadings increased seasonally over April, but were further behind year-ago figures than were earlier months. Department store sales, seasonally adjusted, were up slightly from April and from May last year.

Automobile Sales Disappointing

The auto industry has given up hope that 1957 sales will total 6.5 million cars or more. Revised predictions anticipate no more than the 5.8 million cars sold in 1956 and one important executive would make even this estimate dependent upon a return to the market of 1955 credit buyers who have paid off their installment debt. Sales in April, according to unofficial estimates, ran nearly 4 percent behind April last year and those of early May were also lagging.

Meantime, dealers' inventories are estimated to have reached about 800,000 cars by the end of April, an increase of some 550,000 in little more than six months and uncomfortably close to the peak of some 900,000 in early 1956. Output of 531,000 cars in May was 3 percent below April, but nearly 13 percent above May, 1956. It raised the total for the first five months of this year 4 percent above the same period last year.

Construction Outlays Up, Contracts Off

A seasonal advance in outlays for new construction of 11 percent over April carried the total for May to $4 billion, a new high for the month. On the other hand, construction contracts awarded, which tend to lead outlays, declined 10 percent between March and April after a 42 percent increase from February to March.

The gain in outlays brought the total for the first five months of this year 3 percent above the corresponding period last year. All of the increase over the year was due to increased public construction. The April drop in awards left the contracts total for the first four months of this year at about the same level as January-April, 1956.

Expenditures for nearly all types of private and public construction rose in May. A 22 percent decline in nonresidential construction contracts was the principal factor in the reduction of awards in April. Contracts for factories were off 40 percent from April last year.

Outlays for new private residential buildings, up 8 percent from April, were still well below May last year. Home-building contracts in April were 11 percent above March, although they were off 8 percent from April, 1956. Similarly, nonfarm housing starts in April were 11 percent above March, but 17 percent below April last year and lower than any April since 1949.

Manufacturers' Sales Fall Again

Shipments by manufacturers fell more than seasonally in April, all of the decline occurring in the durable-goods industries and primarily among transportation equipment producers. After seasonal adjustment the drop was estimated at $300 million. The seasonally adjusted book value of manufacturers' inventories rose about $200 million, again with all of the change in the durable-goods industries.

New orders placed with manufacturers in April were about the same as in April last year and were little changed from March of this year after seasonal adjustment. Unfilled orders were reduced from March to April by $1.3 billion to $60 billion.

Consumer Debt Rises

Total consumer debt advanced by $512 million in April to a total of $41 billion, $2.8 billion above the year-ago level. Installment debt accounted for $259 million of the April increase and $31.5 billion of the total outstanding at the end of the month. The addition to total consumer credit was somewhat greater than in April last year, but the April gain in installment credit was less than that of 1956 and only half that of 1955.

Automobile paper, which accounts for about half of all installment debt, increased $158 million in April, the third consecutive monthly advance, but the expansion was below that of April, 1956. Other consumer goods paper declined $27 million and personal loans gained $122 million in April. An increase of $187 million in charge accounts associated with the Easter expansion in retail sales was the principal factor in the growth of noninstallment debt.

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Housing Boom— Then and Now

"Despite the dips and rallies of home-building statistics, I am confident that the housing market is basically sound, and is going to continue strong for many years to come." Albert M. Cole, United States Housing Administrator, April 27, 1957.

The Optimistic View

The following quotations from various authorities seemingly lend support to Mr. Cole's position:

"Many business observers have attributed the decline in building contracts that took place in the first quarter of this year entirely to credit stringency. . . ."

"New elements have crystallized in the building industry. . . . Actual building construction has continued in such volume for five years now that it seems absolutely necessary to discard the 'boom period' and accept the new normal. . . . The coming years of prosperity will undoubtedly see another great uplift in the standards of housing. . . . There is under way the most extensive modernizing and remodeling program ever known in the history of the country. . . ."

"It is probable that demand for residential construction at the present time is not markedly below normal . . . and will improve gradually during the remainder of the year. . . . A real depression in the building industry is not in prospect. The recent decline in construction is more in the nature of a readjustment hastened and aggravated by unsettled credit conditions. . . ."

The hitch is that these supplementary quotations by experts on building conditions are old stuff. All of them first appeared in print in the early months of 1929. Their similarity to what is being said today is remarkable.

Pattern of Decline

In early 1929, residential construction was down substantially from the peak of 1925. Nevertheless, the total value of construction activity was at a peak. Nonresidential contract awards had made an all-time high in 1928, more than offsetting the decline in residential awards. Prominent in sustaining the total was the increase in public works and utilities construction. There were frequent references in 1929 to the tremendous amount of municipal and state bond issues for schools, hospitals, and other public projects.

After a burst of home building in early 1928, the decline in this type of construction accelerated. It seemed appropriate to hold credit conditions responsible, because interest rates began to move up sharply at the same time. The FRB put the rediscount rate up to 6 percent in a series of steps beginning in February, 1928, and there was an outcry against the ruinous effects of tight money.

Following the stock market collapse late in 1929, interest rates were lowered promptly. They reached new lows by mid-1930, but residential construction continued to slide off with only a moderate slackening of pace.

It is not intended to argue that financial stringency is without effect on home building. This is the one place its effects are most clearly felt, and it seems only proper to give the devil his due. However, it is equally clear that in this situation predepression credit conditions were not controlling. Money was not eased until after the decline began, and then other factors were more important than the shift in monetary policy. Falling income and rising unemployment governed the decline to the depression lows. From 1925 to 1933, housing starts declined almost 90 percent.

Basic Supply and Demand Factors

The collapse of the housing boom may be better explained in terms of the basic factors underlying construction activity. Rates of family formation began to decline in the early 1920's and were well under new construction during the boom years. The stock of nonfarm houses available was sure to exceed the number of families after a while. Taking the number of married couples as an index of all families, it appears that the number of houses took the lead in 1925 or 1926. Thereafter, the growing excess exerted a continuous downward pressure on new construction even though income remained high. When unemployment began to increase, the rate of family formation was further depressed and new construction fell more rapidly.

A relationship that explains new housing starts in terms of married couples, the stock of houses available, and unemployment accounts fairly well for rates of new construction over the period from 1922 to date, excluding the period of World War II and the immediate postwar years. Admittedly, it is difficult to standardize such a relationship on the basis of a single cycle, or at most a cycle and a half. Also, the recent postwar decade has been subject to greater disturbances. Nevertheless, it may serve to indicate the existing imbalance.

The basic factors in this relationship are again adverse. Construction has worked off the backlog accumulated during the war, and the supply of nonfarm housing is moving toward an excess. Family formation has slowed and is well below the rate of new construction. Easier terms might make some contribution now, but should unemployment begin to rise, the decline in home building will probably continue even with easing of credit. There is not much more that can be done in lowering down payments and extending periods of amortization in order to bring home purchases within the financial capacity of additional families.

In 1928, actual home building was running somewhat in excess of the volume called for by the relationship; in 1929, it swung all the way over to the other side. Since late 1954, the volume has again been in excess of that called for. Even with continuing prosperity, some further decline in new construction is likely. If for any reason prosperity cannot be maintained, the decline in building still has a long way to go. VLB

MOTELS—MODERN HIGHWAY INNS

In America the business of providing roadside lodgings for travelers goes back to colonial days. Later, the railroad changed the character of hostelry by replacing the stagecoach with faster, more comfortable travel. Inns, tending to locate along with other businesses at railroad stations, became known as hotels.

When the automobile was introduced, adventurers with their horseless carriages wandered far beyond the city limits. After 1913, the roadside inns reappeared to accommodate these courageous travelers, mostly in more thinly settled areas of the West. By 1939 there were 13,000 of these lodgings scattered throughout the country.

The Industry Today

Transition of the motel from cramped roadside cabins to first-class accommodations did not occur in most parts of the country until after World War II. From occasional courts, motels suddenly blossomed into a significant industry. A number of factors were responsible. Among these were the widespread ownership of automobiles, increased holiday touring, greater prevalence of the paid holiday, and development of first-class highways. Moreover, motels became more comfortable and luxurious and were less affected by the problems of hotels, such as parking, high operational costs, and labor problems. Whereas motels have multiplied rapidly in recent years, hotel construction has tapered off. Although hotels require a smaller percentage of occupancy than motels to break even, the former are faced with considerably higher fixed costs and need much more total revenue. For that reason only the first-class hotels in large cities are surviving the motel assault. Many hotels in small cities have become second-rate through decreased business and are giving way to improved facilities of nearby motels.

The motel industry has doubled since 1948, quadrupled since 1939. It provides more than a million rooms for 1.2 million guests each night. The nation's 56,000 motels took in $1.3 billion in 1956.

Operating expenses have taken a smaller share of motel revenue since 1946, the first year of the postwar motel boom. These expenses dwindled from 56 percent of revenue in 1946 to only 42 percent in 1955. But meanwhile the necessity for improvement forced the operator to invest more. There were sharp increases in expenses such as taxes, insurance, depreciation, and interest. The average motel owner in 1945 received a profit of 35 cents from each dollar of rental revenue, but by 1955 his net profit shrank to 24 cents.

The Industry in Illinois

Motels in Illinois are patronized primarily by cross-country tourists and transient businessmen. More than 60 percent of the State's estimated motel income of $22 million in 1956 was derived from overnight commercial travelers and it is estimated that more than 50 percent of the vacationers who stayed overnight while crossing the State were housed in motels.

Although its motel growth has not been so rapid as that of some states, Illinois had a 295 percent increase in number of motels between 1939 and 1954. Meanwhile, the number of hotels decreased 12 percent. Last year, Illinois had an estimated 1,000 motels and tourist courts with more than 12,000 units. Three-fourths of them were less than 10 years old and nearly half were less than five years old.

More than 76 percent of the State's motels are 15 units or less in size and 56 percent are 10 units or less. The two largest motels — of 240 and 150 units — are located in Rockton and Chicago, respectively. Only 11 percent of the State's motels are located within city limits. Most small motels are operated by the owner and his wife. Motels of 16 to 25 units may require three to five employees besides the owners. Larger motels may employ a maid for every 10 rooms plus a manager and an assistant manager. It is estimated that in Illinois only 1,500 persons are employed in the industry.

Chicago, the nation's convention city, has long been a hotel stronghold. Motels were banned until 1953. At that time only one existed within the city limits — and it was nine miles from downtown. Since then, construction in the city has progressed at a phenomenal rate. More than 20 motels are in operation and 15 are under construction. Chicago proper will have more than 2,000 motel rooms available by early 1958, according to an estimate of the American Motel Association of Illinois. Only in Chicago, where land is at a premium, has there been any noticeable trend toward multistory motels.

Problems and Prospects

The motel industry, despite its fantastic growth and popularity, is not without problems. Because of the extreme competitiveness of the industry, there is constant pressure to seek architectural and design improvements as well as new methods of service to attract guests.

The saturation point in motel construction may be near, especially along existing routes where 5,000 new motels were built in 1955-56. Small motels operated by husband-wife teams probably will be squeezed most by new types of competition. Large outlays, rising costs, high mortgages, and growing competition from corporate interests also will pose problems, especially in the lucrative areas.

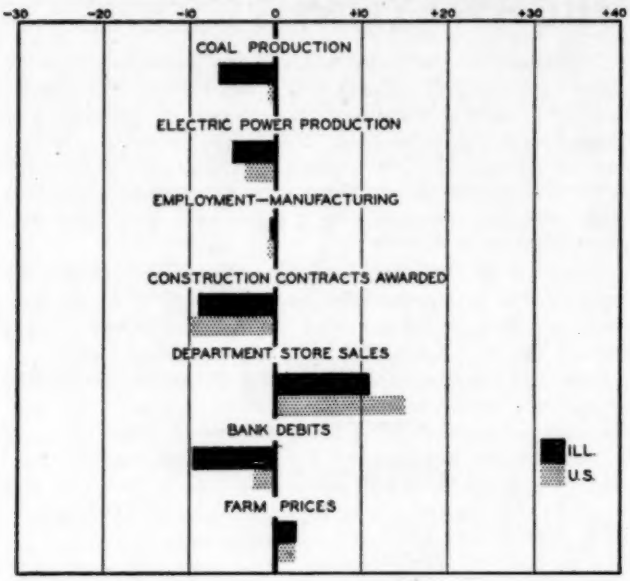
Also perplexing is the new 41,000-mile Federal highway program, 75 percent of which will bypass present-day motels. Although new motels will spring up along the new highways, many bypassed motels may not be able to survive. Their competitive position will depend largely upon how they eventually find themselves located in relation to the new Federal system.

Motels, like hotels, were born out of a shift to different means of transportation. With the increase in automobiles, the future points to continuing popularity of motels, at least until new developments in land and air transportation create demands for new forms of accommodations for travelers.

STATISTICAL SUMMARY OF BUSINESS ACTIVITY

SELECTED INDICATORS

Percentage changes March, 1957, to April, 1957



ILLINOIS BUSINESS INDEXES

Item	April 1957 (1947-49 =100)	Percentage change from Mar. 1957	Percentage change from Apr. 1956
Electric power[1]	209.6	−4.7	+ 3.9
Coal production[2]	75.9	−6.6	− 3.3
Employment—manufacturing[3]	107.0	−0.6	− 1.2
Weekly earnings—manufacturing[3]	155.3[a]	−0.1	+ 4.3
Dept. store sales in Chicago[4]	117.0[b]	−4.9	+ 1.7
Consumer prices in Chicago[5]	122.0	+0.3	+ 3.3
Construction contracts awarded[6]	337.9	−8.7	n.a.
Bank debits[7]	175.6	−9.4	+ 7.2
Farm prices[8]	81.0	+2.5	+ 2.5
Life insurance sales (ordinary)[9]	288.5	−4.0	+31.0
Petroleum production[10]	125.7	−4.2	+ 2.1

[1] Fed. Power Comm.; [2] Ill. Dept. of Mines; [3] Ill. Dept. of Labor; [4] Fed. Res. Bank, 7th Dist.; [5] U. S. Bur. of Labor Statistics; [6] F. W. Dodge Corp.; [7] Fed. Res. Bd.; [8] Ill. Crop Rpts.; [9] Life Ins. Agcy. Manag. Assn.; [10] Ill. Geol. Survey.

[a] March data; comparisons relate to February, 1957, and March, 1956. [b] Seasonally adjusted. n.a. Not available.

UNITED STATES MONTHLY INDEXES

Item	April 1957	Percentage change from Mar. 1957	Percentage change from Apr. 1956
	Annual rate in billion $		
Personal income[1]	339.3[a]	+ 0.4	+ 5.5
Manufacturing[1]			
Sales	342.0[a]	− 1.0	+ 4.8
Inventories	52.5[a, b]	+ 0.4	+ 9.4
New construction activity[1]			
Private residential	13.1	+ 6.9	−11.7
Private nonresidential	15.3	+ 5.5	+ 7.1
Total public	13.1	+20.5	+ 9.7
Foreign trade[1]			
Merchandise exports	25.7[c]	+33.5	+35.4
Merchandise imports	13.5[c]	+12.2	+ 4.9
Excess of exports	12.2[c]	+68.8	+99.4
Consumer credit outstanding[2]			
Total credit	41.0[b]	+ 1.3	+ 7.3
Installment credit	31.5[b]	+ 0.8	+ 7.2
Business loans[2]	31.3[b]	+ 3.4	+12.6
Cash farm income[3]	n.a.	....	....
	Indexes (1947-49 =100)		
Industrial production[2]			
Combined index	145[a]	− 0.7	+ 1.4
Durable manufactures	161[a]	− 0.6	+ 1.3
Nondurable manufactures	132[a]	+ 0.8	+ 1.5
Minerals	129[a]	− 3.0	0.0
Manufacturing employment[4]			
Production workers	106	− 0.1	− 1.4
Factory worker earnings[4]			
Average hours worked	100	− 0.5	− 1.0
Average hourly earnings	154	0.0	+ 4.6
Average weekly earnings	168	+ 8.0	+12.4
Construction contracts awarded[5]	307	− 9.8	− 9.0
Department store sales[2]	122[a]	− 3.9	0.0
Consumer price index[4]	119	+ 0.3	+ 3.8
Wholesale prices[4]			
All commodities	117	+ 0.3	+ 3.2
Farm products	91	+ 2.0	+ 3.0
Foods	104	+ 0.6	+ 3.9
Other	125	− 0.1	+ 3.0
Farm prices[3]			
Received by farmers	89	+ 2.3	+ 2.3
Paid by farmers	118	0.0	+ 3.5
Parity ratio	81[d]	+ 1.3	− 2.4

[1] U. S. Dept. of Commerce; [2] Federal Reserve Board; [3] U. S. Dept. of Agriculture; [4] U. S. Bureau of Labor Statistics; [5] F. W. Dodge Corp.

[a] Seasonally adjusted. [b] As of end of month. [c] Data are for March, 1957; comparisons relate to February, 1957, and March, 1956. [d] Based on official indexes, 1910-14 = 100. n.a. Not available.

UNITED STATES WEEKLY BUSINESS STATISTICS

Item	1957 May 25	1957 May 18	1957 May 11	1957 May 4	1957 April 27	1956 May 26
Production:						
Bituminous coal (daily avg.) thous. of short tons	1,625	1,607	1,614	1,595	1,667	1,657
Electric power by utilities mil. of kw-hr	11,574	11,519	11,311	11,286	11,310	10,927
Motor vehicles (Wards) number in thous	151	151	149	144	148	130
Petroleum (daily avg.) thous. bbl	7,456	7,511	7,434	7,529	7,537	7,071
Steel 1947-49=100	128	125	129	129	132	139
Freight carloadings thous. of cars	723	723	723	719	691	788
Department store sales 1947-49=100	116	120	133	133	123	117
Commodity prices, wholesale:						
All commodities 1947-49=100	117.1	117.2	117.2	117.1	117.3	114.4[a]
Other than farm products and foods 1947-49=100	125.2	125.3	125.4	125.4	125.4	121.7[a]
22 commodities 1947-49=100	88.3	87.6	88.2	88.2	88.7	90.4
Finance:						
Business loans mil. of dol	31,328	31,569	31,338	31,450	31,349	28,093
Failures, industrial and commercial number	309	264	267	297	263	273

Source: *Survey of Current Business, Weekly Supplements.*

[a] Monthly index for May, 1956.

RECENT ECONOMIC CHANGES

Consumer Durable Goods Output Off

In contrast to industrial production, which tended moderately upward during 1956 and then was maintained on a high plateau in the early months of 1957, production of consumer goods has continued to exhibit downward tendencies evident since mid-1955. The Federal Reserve Board's index of major consumer durable goods, exclusive of automobiles, averaged 7 percent lower in the first three months of this year than a year ago and was down nearly 10 percent from 1955's mid-year peak. Auto production, which has been considerably more volatile than output of other durables, was also down substantially from 1955's record volume.

Manufacturers of many household durables have faced inventory difficulties in recent months. Sales of major appliances at department stores, for example, declined more than 10 percent between mid-1955 and April of this year. At the same time, stocks increased by a fifth.

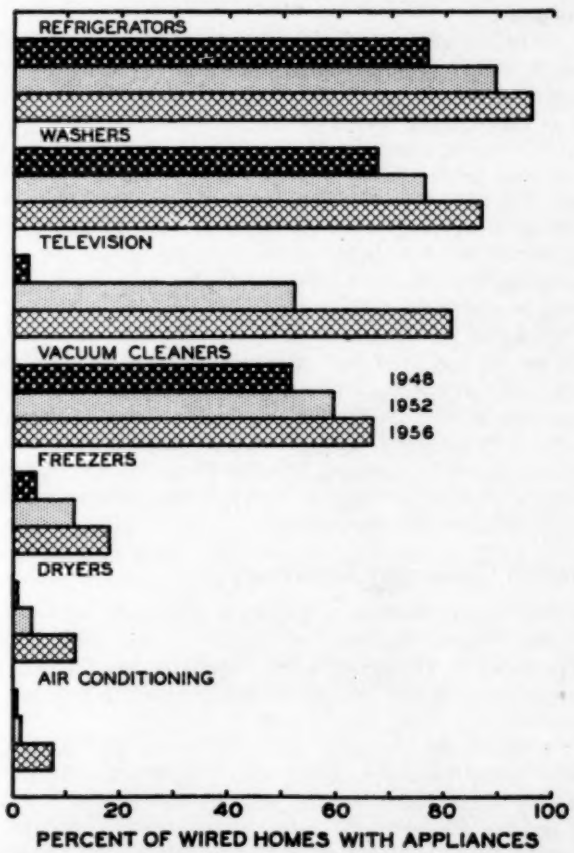
Reflecting the inventory surplus, production of television sets, ranges, refrigerators, and laundry appliances was off about 10 percent in the first quarter from a year ago. The decline in output of furniture and floor coverings has been more moderate and output of miscellaneous small appliances and personal goods has continued at a rate about equal to last year.

Appliance Markets

The extent of mechanization enjoyed by American families is depicted in the chart below. Almost all wired homes in the United States had refrigerators in 1956, and ownership of washing machines, television sets, and vacuum cleaners was markedly high.

Greatest relative growth in ownership during the past decade occurred in the more recently developed appliances — television sets, freezers, dryers, and air conditioners. For all lines, demand moved ahead strongly during the decade under the stimulus of high per capita incomes and growth in family formation. Home building is also an important factor in the demand for appliances. The reduction in sales and output of household durables which has occurred since mid-1955 has resulted partly from the cutback in residential building.

APPLIANCE OWNERSHIP



Source: Council of Economic Advisers.

Liquid Saving at Record High

Individuals' saving in the United States more than doubled between 1955 and 1956, according to estimates of the Securities and Exchange Commission. Saving, including claims in the form of cash and bank deposits, savings and loan association shares, securities, insurance and pension reserves, net of the increase in individuals' debt, rose from $7.6 billion in 1955 to $14.6 billion in 1956. The 1956 total was a record high and compares with $12.9 billion in 1952, the previous peak.

The most important change in individuals' saving between 1955 and 1956 was in the form of increased equity in securities, reflecting repayment of security loans in 1956 in contrast to substantial borrowing on securities in 1955. New savings in corporate and government securities rose by $7.2 billion last year compared with $5.6 billion the year before. Individuals' savings deposits at banks, share accounts with savings and loan associations, and equity in government and private insurance reserves also increased more than in 1955.

Offsetting higher liquid saving was a continued advance in personal debt on mortgage and durable goods accounts. The increase of $13.6 billion last year, however, was considerably less than 1955's $18 billion advance. The lower rate of debt expansion reflected reduced purchases of consumer durable goods, increased repayment of obligations on outstanding debts, and the letdown in home construction — mortgage debt rose $1.3 billion less than in 1955.

Corporate Securities

New security offerings by corporations reached a record high in the first quarter. Reflecting peak level capital expenditures, offerings increased to $3.6 billion, 20 percent above the fourth quarter of last year and 60 percent more than in the first quarter.

The largest increase in the first quarter was in debt issues, to $2.8 billion, $900 million over the fourth quarter and a billion dollars above the opening quarter a year ago. Common stock issues totaled $750 million, down moderately from the previous quarter when they were inflated by a single large issue by AT & T, and double the year-ago volume. Manufacturing companies accounted for 55 percent of new common stock financing in the first three months of the year.

Most of the proceeds from new issues were earmarked for new money purposes. New money scheduled for plant and equipment expenditures amounted to $2.6 billion, a half billion more than in the fourth quarter and up $1.5 billion from a year ago. Requirements for working capital totaled $600 million. Demand for external funds for working capital has been declining since early 1956.

THE JET AIRPLANE OF 1959

HAL E. NOURSE
Vice President — Economic Controls, United Air Lines

The progress of air transportation has resulted from the industry's willingness to choose a bold path in the adoption of the latest and best technological developments in engines, aircraft, and operating facilities. The next step forward will be no exception to the past.

There are today over 1,300 aircraft in commercial operation, with speeds up to 365 miles per hour, flying over 1½ million miles per day, carrying 41 million passengers in 1956, serving about 550 cities of the country, over some 80,000 miles of route, with a much better safety record than the private automobile, and at fares practically unchanged in fifteen years. That summarizes where we stand in commercial air transportation near the end of the "piston" era, which, incidentally, has been a good one.

Today, the airlines of the United States have on order almost 400 jet airliners with a price tag of about 2.5 billions of dollars. Of these 400 airplanes, about 210 will be turbo-jets, the balance turbo-props. Both types of airplanes will use the principle of turbo power, in which thrust or power comes from the ejection to the rear of expanding gases from a combustion chamber. The turbo-prop uses most of its thrust power to turn a propeller, whereas the turbo-jet uses all its thrust to push the airplane forward through the air. Since this new type of power for air is so broad in its aspects and innovations, the following remarks will be confined to the full turbo-jet-powered airplanes of the Douglas DC-8 type. These airplanes are destined to bring a new high level in transportation.

Physical Characteristics — the Jetliner

In the past, before each new airplane was introduced, it was designed to provide higher speed, greater comfort, and greater dependability at a lower cost. The jet airliner of 1959 promises to do all of these things.

The DC-8 will cruise at about 575 miles an hour in still air at 35,000 feet altitude, or about 88 percent of the speed of sound. Under the same wind conditions the DC-7, our fastest present airliner, will do 365 miles an hour; the DC-6, 300 miles an hour; and the old reliable DC-3, 180 miles an hour. Thus in a score of years speed will have increased from 180 to 575 miles an hour, or over three times. The difference in speed between the DC-8 and DC-7 represents roughly a 60 percent increase.

Going back a score of years and leaving Chicago in a DC-3, you would be over North Platte, Nebraska, about the same time you would be circling for a landing at San Francisco in late 1959. Incidentally, in a streamlined train you would be pulling into Ottumwa, Iowa; and in a highway bus you would still be in Illinois when the jet lands in San Francisco.

The following are some specific examples of future schedules.

Required time	*Trip*	*Leave* (Local time)	*Arrive* (Local time)
1:40	New York to Chicago	5:00 PM	5:40 PM
4:10	Chicago to San Francisco	5:00 PM	7:10 PM
		(Full evening in San Francisco)	
4:10	Chicago to San Francisco	7:30 AM	9:40 AM
		(Full day in San Francisco)	
1:20	Chicago to Washington	6:00 PM	8:20 PM

The speed of the jet may itself present some schedule problems. The airplane will be so fast that its use overnight will be limited. For example, if you left Chicago at midnight, you would be rudely awakened on arrival in Los Angeles at about 2:00 AM Pacific Time (with the difference in time belts). Who would choose that kind of schedule? You could leave, however, at 9:00 PM and yet be in your bed by midnight Los Angeles time. This is good! Nevertheless, people will probably prefer to leave at the close of Chicago business and have the evening in Los Angeles.

Over a 24-hour period, a single jet airplane could start at New York City at 8:00 AM, fly nonstop to Seattle, have ample time for turnaround, leave Seattle in the late afternoon, and be back in New York City by 11:00 PM New York time. Not bad departure times anywhere. Or, it could fly to Seattle and make a round trip to Los Angeles during good daylight hours. Let me hasten to add that not every airplane in the fleet could be utilized so much — service, overhaul, and market limitations would prevent this.

The DC-8 jet airplane will weigh roughly twice as much as the DC-7, or about 265,000 pounds fully loaded. It will also carry about 120 first-class or 155 coach passengers, whereas the DC-7 capacity is 58 first-class or 86 coach passengers. Both airplanes have the ability to carry their full payload coast to coast in either direction, and the DC-8 will have capacity, in addition to its full passenger complement, for about four to six tons of baggage and cargo, depending on whether it is coach or first-class.

It is interesting to convert these factors of size, weight, speed, and schedules into terms of work the airplane can do. On the basis of speed alone, the DC-8 will fly as far in eight hours as the DC-7 does in 12½ hours, but, of course, this is only part of the story because the DC-8 has twice the number of seats. Relating speed and seats, the DC-8 will do in eight hours the equivalent passenger-carrying work of the DC-7 in 28 hours. The jet, therefore, is capable of performing about 3½ times the work in terms of seat-miles as the most modern airplane in operation today.

In terms of passenger-carrying capacity, the jetliner will do the work of four streamliner trains or 60 highway buses. It could carry as many passengers in a year's time across the North Atlantic as a large passenger-carrying ocean liner. Such statements represent the slide-rule approach, of course, but the basis for the relationships are correct according to the latest engineering data on the airplane of the future.

Capital Costs and Economies

The jetliner will do a tremendous amount of work in a given length of time, no doubt of that. But, "what *price* glory?" The word price should be emphasized because this airplane will be very expensive to buy and to operate.

A DC-8 jet airplane will cost some $5,000,000-plus and a DC-7 runs something under $2,000,000. Thus, the DC-8 will cost between 2½ and 3 times as much as the DC-7, but in terms of work done, the DC-8 will do roughly 3½ times that of a DC-7. This means economic

progress. Stated another way, if the total first cost of the jetliner and that of the present day DC-7 are related to their respective lifetime productive capacities in terms of seat miles, it is evident that the jet will produce twice as much per dollar invested as the DC-7. This is due to the two factors already discussed, speed and size, as well as to an expected difference in competitive useful life of the two airplanes.

The DC-7 is being written off over a seven-year span, whereas it should be possible to keep the jet in successful competitive service for at least ten years. Airplanes of the past have been capable of service physically beyond their ability to compete successfully. A new, faster, more modern, more economical design has come along and has been put in competitive service before the older model was worn out. It has been somewhat like buying a new automobile before yours wears out in order to be competitive socially.

The principal reason for competitive obsolescence in the case of airplanes is the constantly increasing speed of the newer designs. People want more and more speed and they will buy it in preference to a slower schedule, if it is available. The jetliner of 1959 and beyond will operate close to the speed of sound, and the cost of producing speed greater than the speed of sound would make the airliner prohibitive from an economic point of view. The increased power and weight and therefore cost required to break through the sound barrier is all out of proportion to the increase in speed to be obtained.

Undoubtedly the aircraft designers will eventually produce a successful commercial airplane that will break the sound barrier both as to *sound* speed and *sound* economics, but this seems a long way off at the moment. The time required between a commercial airplane's conception and its date of service inauguration is in excess of seven years. There are no supersonic commercial transports yet on the drawing board and probably will not be for several years to come. It will be economically good for the industry to have to wait quite a while for the supersonic age.

In the meantime, the power-speed-weight relationship of the coming jets will become a real economic stabilizing factor for the future of air transportation. It will allow us to really use the airplane — use it over its physical life, which will become more nearly synonymous with its competitive life. It will tend to reduce both the operating costs and the break-even load factor.

Operating Costs

The obsolescence and depreciation factor and its effect on reduced operating costs per unit of lift has already been discussed. One other factor which is expected to reduce costs is worthy of some treatment, namely, the simplicity of design of the jet engine compared with the piston engine. The jet engine has only one-tenth the number of moving parts that a large piston job has. The primary moving parts in a jet are moving constantly in one direction (rotary) whereas the major parts of a piston engine are required to reverse their direction constantly and at great speed. Offsetting in part, however, is the fact that the temperatures in the hot parts of the jet engine are much higher than those of the piston power plant. The metallurgists have done a magnificent job on the temperature problem by coming up with alloys that "love that heat."

Regardless of offsets, the simplicity of design will tend to reduce costs in two ways: (a) less overhaul costs per pound of engine, and (b) fewer metal fatigue problems throughout the aircraft structure because of reduced vibration.

When we first studied the economics of the jet, we were simply elated over the prospects of drastically reduced operating costs. Some of this elation has disappeared because of two basic factors which increase rather than reduce costs. One is the capacity of the engine to gulp fuel. That engine is really thirsty and the weight of fuel alone is almost equal to the weight of a DC-7 fully loaded and ready for take-off. Fuel costs will be high even though it uses fuel of lower grade than piston airplanes, which therefore costs less per gallon.

The other cost-raising factor is associated with the complexity of the systems designed into the new airplane, which results in increased maintenance costs per pound of airplane structure. Among these are ventilation, pressurization, lighting, cargo loading, heating, fueling, and other systems which will be integral parts of the new airplane. Some of this increased complexity is due to the high speeds and altitudes at which the airplane will fly.

This complexity of systems has an offset in the simplicity of cockpit design, with fewer instruments and levers to control the actual power and flight of the airplane.

Now, all this raises a lot of economic smoke, possibly creating a kind of haze. When all this smoke leaves, it becomes clear that the break-even costs on the jet will be the lowest in the history of the industry. The break-even factor in terms of percent of passenger load should be about 50 percent or lower on an annual basis. This is a substantial reduction from our present break-even factor of about 60 percent. These figures reflect overhead charges as well as direct operating costs.

This indicated lower break-even point will be an important improvement not only for us who are in the business, but for potential customers as well. With a lower break-even point, we can plan our volume of service and schedules in a manner which will not require a high factor to make an adequate profit. This means better service for customers when they ask for it. For us it means more business in the aggregate.

Jet Markets

A lower break-even point would of course be of no avail if the jet failed to generate markets to allow load factors in excess of break-even. Unless this happened, all the fine design and operating characteristics in the world would be useless. Much depends on the jet market.

First of all, the jet airplane likes the long haul; there is where it will pay off. No use getting up in the air 35,000 feet if you're not going somewhere. It must cater to the long-range passenger by proving its timesaving ability. It must operate for the most part at ranges from 700 to 2,700 miles. It will serve the great population centers of the country where high density markets exist, markets such as New York, Washington, Chicago, and Detroit, together with principal West Coast points. This is the way the service will start and it will extend into other centers as acceptance and the general traffic level rise.

The market must ultimately be measured in terms of paying customers. We say about 50 percent is low and 60 percent is high for break-even; in spite of this ten-point spread it will take 61 passengers per airplane to break even in a jet and only 35 per airplane on a DC-7. Thus, a frequency problem may be created: with the airplane so large, the market between points served by the jet will have to double or present frequency of schedule will

necessarily be reduced. Market size is itself influenced by the convenience and frequency of departure times.

The industry thinks it is doing well today in flying some 22 billion passenger miles in 1956 and carrying some 41 million passengers. In order to make the jets economical, these figures must increase greatly over the next decade, perhaps even double. We believe the passengers required for the jet era will be there, ready, willing, and able to go, but in order to project enough passengers and cargo for the jet age we make certain assumptions. They are

(1) Continued increase in population, 2 percent per year;

(2) Continued increase in economic activity, probably 3 percent per year;

(3) Continued increase in the acceptance of air travel; and

(4) Continued penetration by air into the rail and bus travel market. Today 36 percent of public carrier travel is in airplanes; of the first five passenger carriers in this country today, four are airlines, and the largest is an airline.

It is inconceivable that the additional speed and the smooth, vibrationless jet ride will not in itself help achieve the markets required.

Jet Era Problems

So far you have heard nothing but optimism about the airlines' future and the jet airplane. The introduction of this new type of power and additional speed will, of course, present a family of problems that will have to be solved. The following comments on some of these problems represent a sort of status report.

Obsolescence. As previously mentioned, the jet airplane will do a tremendous amount of work and will therefore make today's best piston aircraft obsolete. This will leave many surplus piston airplanes for other uses. For the past fifteen years, people have been saying: What will you do with the DC-3 when the DC-4 comes along, and what will you do with the DC-4 when the DC-6 and DC-7 and Constellations are available? Up to now, the world market for surplus airplanes has been very gratifying. The airlines have been able to dispose of such aircraft at prices much greater than book value at the time of sale. There is no question but that there will continue to be a world market for piston aircraft, but surplus aircraft could saturate the market very rapidly and consequently lower the price. This problem will take some thought and planning on the part of the airlines if it is to be solved successfully.

Noise. Certain communities of the country have become quite vocal with respect to jet noise associated with the full surge of power at take-off. Both the engine manufacturers and airframe manufacturers have set their best talent to work on the problem, and we are confident that the external noise can be kept within the limits of what we are accustomed to today in piston aircraft.

Blast. There has been some concern that when the jetliner taxis away from the loading gate, the blast of engine gases will be a definite nuisance to customers and their friends, as well as to airline personnel. Experiments with scientifically designed blast fences have been conducted with surprisingly good results. We believe this problem will certainly be solved to the satisfaction of all concerned.

Brake Power. The jet airplane will land at a considerably higher speed than the aircraft of today. With its momentum and weight it must, without some braking device, have a very long runway for roll. Again the manufacturers have largely solved this problem; a simple mechanical reverse thrust mechanism will do the job with the efficiency of the present-day propeller-reversing mechanism.

Runway Length. An airplane of 265,000 pounds gross weight will require runways of about 10,000 feet in length for take-off under the most severe operating conditions. In the beginning of the operation of jet aircraft, it is anticipated that markets of sufficient size to support the jet will be spread over about two dozen metropolitan centers of the country. There will be runway length problems in some of these communities, but the great majority of the centers to receive jet service during the early years either now have runways of sufficient length or are planning to complete them by 1960.

Field Terminal Facilities. Imagine what we call a triple-cross taking place, involving three jet airplanes at a Chicago airport. There would be three 120-passenger airplanes on the ground at one time, deplaning their passengers who will be meeting friends and relatives. Add to this the people who are waiting to board the same airplanes for some distant point, also accompanied by friends and relatives to see them off. Quite a crowd, perhaps several hundred people, would be milling about. The airlines are conscious of this problem and are active in planning solutions — solutions having to do with scientifically designed fingers and counters and the use of loading bridges to the airplane door, automatic conveyor systems for cargo and baggage, and enlarged floor areas and counter space within the terminals. A good example of the planning which can solve this terminal problem is that of O'Hare Field in Chicago, where a number of innovations are being installed to minimize the congestion problem.

There are, of course, many other technical and operating problems in connection with the operation of the jet airplane that are being worked on. It is said that when a situation is recognized as a problem and action is started, many times that problem is well on its way to final solution. The airlines, with their technical staffs, are certainly alert to the many situations that will require a brand new and innovative approach. We in the industry still have more than two years to work out solutions and you may be sure nothing will stand in the way of that wonderful air service of 1959 and beyond.

Summary

The following may be considered the most significant points in our rose-colored view of the fabulous new airplane of 1959:

The jetliner will have a tremendous capacity for work in terms of passenger-carrying ability.

Its operating economics are more favorable than any transport type designed to date, both as to first cost and operating cost.

The jetliner should have a long and successful economic life because of its great speed, which in turn will protect it from fast obsolescence.

The airplane should be a self-generator of markets because it will allow a great stride forward in fast, dependable transportation, particularly in medium to long hauls.

The introduction of the jetliner will bring with it a family of problems. The air transport industry and the manufacturers are alert to those problems. Solutions have been worked out or are being worked out with ample time for completion.

BUSINESS BRIEFS

PUBLICATIONS AND DEVELOPMENTS OF BUSINESS INTEREST

Rising Farm Land Prices

Farm real estate market prices in the United States continue to rise, according to recent reports from the United States Department of Agriculture. March 1, 1957, market prices for farm land and buildings registered a new peak of $94.52 per acre, an increase of nearly 7 percent over year-ago prices and 47 percent above the 1947-49 average. For the year ending March 1, farm land values increased in all except four states — Nebraska, Wyoming, Colorado, and New Mexico. Drought was one of the major depressing factors in those areas.

In addition to the influence of prosperity in the economy as a whole, farm real estate values have also been strengthened by increased demand from farmers for land with which to enlarge existing farms. As the cost-price squeeze has become more severe, more farmers have sought to expand their scale of operations in order to reduce unit costs.

To an increasing extent, farm land in many areas is valued on the basis of potential as well as actual uses for nonfarm purposes. An estimated one million acres a year is being absorbed for living space, factories, and service and recreational areas to meet growing population needs.

Picnic Time Once More

Camping trip hardships as well as those of one-day picnics are decreased with the aid of the Wagon-Galley, a new outdoor food chest produced by Randolph Enterprises, P.O. Box 51, Williamstown, Massachusetts. Made to fit any standard-size station wagon, this 42 by 24 by 24 inch chest has two compartments with both doors opening on the front for easy access. One space can hold 100 pounds of ice in addition to foods needing refrigeration, and the other has four storage shelves.

Barbecue enthusiasts will welcome the self-starting Neet-Heet charcoal briquet that is packaged in material made of molded wood pulp. Retailing for 39 cents, the package burns with the flick of a match and in turn ignites the charcoal. The briquets are packaged by the Diamond Match Company in Burnside, Kentucky.

Inland Waterways

New Dimensions in Transportation describes the industries served, the areas reached, and the services rendered by the inland waterway systems in the United States. A recent publication of American Waterway Operators, Inc., 1025 Connecticut Avenue, Washington 6, D. C., this 48-page pictorial booklet also includes a map of the various waterway routes. The Mississippi River System, including the Missouri, Illinois, Ohio, Tennessee, and Arkansas rivers, comprises over two-fifths of the total 29,000 waterway miles.

Geared to relatively flexible, low-cost delivery of basic raw materials, fuels, and semifinished and bulky finished products, these systems now move about 7 percent of the nation's total freight. This proportion should continue to increase as the waterways are improved and as industry becomes more decentralized.

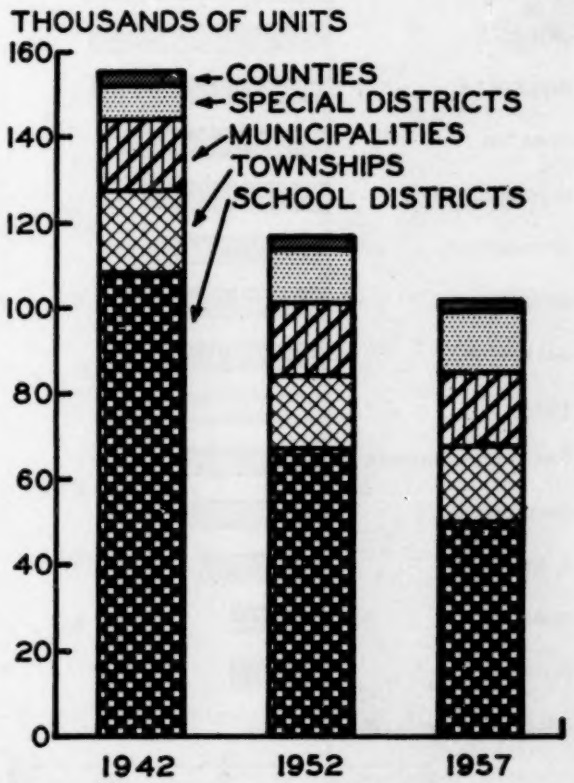
Topics included are types of craft operating on the inland waterways; sectors and industries of the economy served, such as agriculture, steel, coal, petroleum, chemicals, power, paper, and automobiles; and tables on freight ton-miles on the different systems for various commodities. Copies of this booklet are available upon request from the publisher.

Governments in the United States

Governmental units in the United States totaled 102,353 in January, 1957, according to a recent release by the Bureau of the Census. This represented a decline of more than one-tenth from the 1952 total and slightly more than one-third from the 1942 count. The most striking changes involved school districts. The 1957 total, reflecting a steady decline, was less than half that of 1942 as a result of extensive reorganization of school districts. On the other hand, a consistent growth in special districts over the 15-year period has boosted their total nearly 75 percent over the 1942 total.

Local school districts in 1957, numbering 50,453, accounted for more than half of the total local government units, as may be seen in the accompanying chart. Townships and municipalities each represent about 16 percent of the total, special districts about 14 percent, and counties nearly 3 percent. The number of governmental units per state averaged 2,132 and ranged between a high of 6,659 in Nebraska, where three-fourths were school districts, and a low of 91 in Rhode Island, which has no school districts.

LOCAL GOVERNMENT UNITS, 1942, 1952, AND 1957



Source: Bureau of the Census, *Governments in the United States in 1957.*

LOCAL ILLINOIS DEVELOPMENTS

Most indicators of Illinois business activity declined somewhat during April, 1957. The exceptions were prices received by farmers and business loans at leading Chicago banks, both of which increased slightly.

Year-ago comparisons, on the other hand, revealed increased activity in all areas except coal production and manufacturing employment. Chicago business loans rose more than 14 percent and life insurance sales 31 percent.

Electric Power Expansion

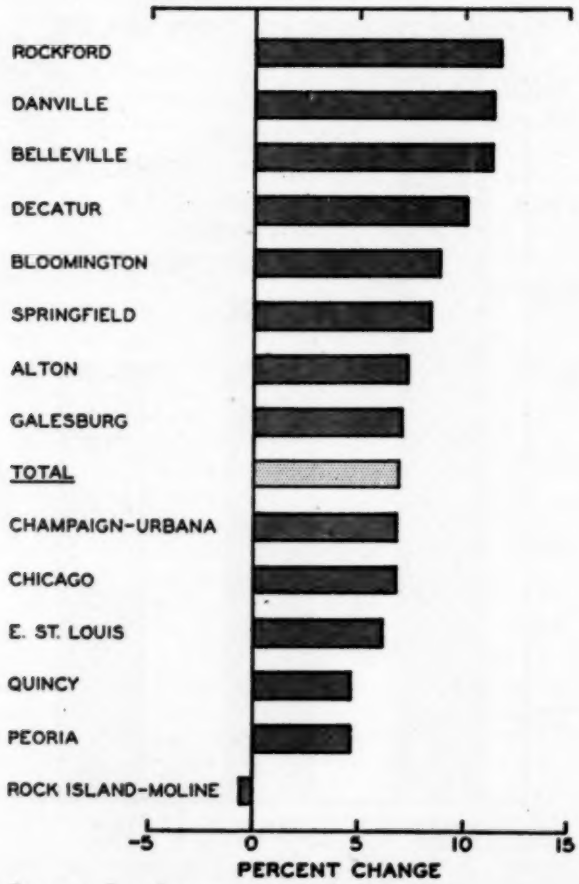
Increased business activity resulted in a gain of nearly 7 percent in the power used by major Illinois cities in 1956. With the exception of the Rock Island-Moline area, advances of 5 to 12 percent were recorded throughout the State. The sharpest rises were recorded in industrial centers (see chart). Power use in the Rock Island-Moline area fell slightly below the 1955 level. Falling sales and overstocked inventories in farm equipment, in addition to prolonged strikes, contributed heavily to the fall in electric power consumption in this area.

Crop Outlook

Excessive April and May rains have resulted in the latest Illinois planting season in 12 years, according to the Illinois Cooperative Crop Reporting Service. In addition to delayed planting starts for corn and soybeans, losses of small grains have been incurred because of drowning. Substitution of beans for some damaged grain acreage, replacement of corn with beans if planting continues to be delayed, and use of earlier maturing varieties of corn were some of the alternatives farmers were considering. However, Mr. J. A. Ewing, of the Reporting Service, stated that yields from short-season corn varieties are likely to be much smaller than those from the standard-season types.

Although planting is unusually late, farmers now have the best soil moisture conditions in several years. As a result, pasture and hay prospects are excellent.

CHANGES IN ELECTRIC POWER CONSUMPTION, 1955 TO 1956



Source: Local power companies.

Industrial Developments

Expansion of facilities by Illinois chemical companies in 1957 will result in an investment of more than $90 million, according to Mr. Jay H. Forrester, president of Amoco Chemicals. This figure includes some construction started in 1956 and comprises 32 projects. Predicting a continued growth of about $65 million annually for the next five years, Mr. Forrester states that Illinois ranks fourth in the nation in production of chemicals and allied products and third in employment. In the Chicago area, sales recently have amounted to about $1 billion annually.

In southern Illinois, the largest combined strip and slope mine in the United States is being developed at Freeburg in St. Clair County. Started in March, 1956, the River King Mine is expected to be in operation by late 1957. With an ultimate producing capacity of 4 million tons of coal a year, the mine's opening will create employment opportunities for several hundred miners.

Housing Starts by States

State estimates of nonfarm housing starts are now available on a quarterly basis with comparable data shown for the previous year. In an effort to develop more detailed geographical information on the volume of new home building, the United States Department of Labor's Bureau of Labor Statistics is introducing a new series in the May issue of *Construction Review*. The initial series includes 19 states and the District of Columbia, which together accounted for 75 percent of all new nonfarm housing started in the 1954-56 period.

In this first announcement, 65,800 housing starts were recorded for Illinois in 1956, an increase of 6 percent over 1954 starts and a decline of 13 percent from the 1955 total. With a 1956 State population of nearly 9.5 million, the rate of new starts per 1,000 persons was 7.0. A substantial part of the new housing was probably for replacement units because of a relatively small population growth and subsequent small expansion pressure in housing.

NOTE: The F. W. Dodge Corporation series on construction contracts awarded in the United States (pp. 4 and 12) has been revised as of January, 1957. The revised series includes data for 48 states instead of 37 as formerly and employs new techniques for compiling data on residential building. In order to link the two series, the three-month period of January through March of 1956 has been used. A comparative ratio of the estimated 48-state and 37-state data during that period is applied to the 1947-49 base to obtain a revised base. This base will be used until data are available for a 12-month link.

COMPARATIVE ECONOMIC DATA FOR SELECTED ILLINOIS CITIES

April, 1957

	Building Permits[1] (000)	Electric Power Consumption[2] (000 kwh)	Estimated Retail Sales[3] (000)	Department Store Sales[4]	Bank Debits[4] (000,000)	Postal Receipts[5] (000)
ILLINOIS	$37,547[a]	1,106,023[a]	$520,303[a]		$15,350[a]	$13,955[a]
Percentage change from Mar., 1957	−7.1	−4.6	−5.4	+11	−9.4	−3.8
Percentage change from Apr., 1956	−1.7	+3.9	−0.5	+11	+7.2	
NORTHERN ILLINOIS						
Chicago	$24,445	832,644	$383,735		$14,026	$12,158
Percentage change from Mar., 1957	−22.5	−6.6	−5.2	+10	−10.0	−4.3
Percentage change from Apr., 1956	+3.0	+2.2	−1.5	+11	+7.4	
Aurora	$ 602	n.a.	$ 7,478		$ 61	$ 143
Percentage change from Mar., 1957	−12.6		−9.7	+24	−6.5	+9.6
Percentage change from Apr., 1956	−75.4		+0.4	+8	+9.5	
Elgin	$ 652	n.a.	$ 5,463		$ 40	$ 91
Percentage change from Mar., 1957	+33.6		−2.6	+5	−1.7	+10.8
Percentage change from Apr., 1956	+175.1		+6.8	+9	+8.5	
Joliet	$ 490	n.a.	$10,965		$ 77	$ 94
Percentage change from Mar., 1957	+7.0		−6.0	+22	−4.8	+2.8
Percentage change from Apr., 1956	−17.2		−2.5	+18	+4.3	
Kankakee	$ 186	n.a.	$ 4,502		n.a.	$ 47
Percentage change from Mar., 1957	−36.5		−1.7	n.a.		−5.1
Percentage change from Apr., 1956	−42.4		+6.6			
Rock Island-Moline	$1,277	24,906	$ 8,683		$ 96[b]	$ 151
Percentage change from Mar., 1957	+21.9	+11.4	−2.5	n.a.	−4.9	+13.9
Percentage change from Apr., 1956	+10.6	+9.3	−4.9		+11.5	
Rockford	$1,465	46,303	$16,758		$ 172	$ 232
Percentage change from Mar., 1957	+45.5	−3.6	−10.2	+26	−12.3	−0.0
Percentage change from Apr., 1956	−42.4	+23.1	−2.8	+35	+4.0	
CENTRAL ILLINOIS						
Bloomington	$ 108	8,473	$ 4,750		$ 64	$ 87
Percentage change from Mar., 1957	−88.0	+5.2	−0.7	n.a.	−0.4	−2.2
Percentage change from Apr., 1956	−63.8	+6.3	+3.7		+6.3	
Champaign-Urbana	$ 640	11,189	$ 6,902		$ 65	$ 88
Percentage change from Mar., 1957	+3.2	+2.7	+0.3	n.a.	−3.0	−13.3
Percentage change from Apr., 1956	−15.9	+9.6	+8.8		+1.1	
Danville	$ 184	12,350	$ 5,436		$ 50	$ 56
Percentage change from Mar., 1957	+46.0	+12.9	+1.0	+24	−7.6	+3.3
Percentage change from Apr., 1956	−63.0	+17.2	−1.2	+13	−5.8	
Decatur	$1,532	32,663	$10,871		$ 112	$ 110
Percentage change from Mar., 1957	+43.7	+3.4	−0.6	+20[c]	−9.9	−6.3
Percentage change from Apr., 1956	−55.7	+4.8	+3.1	+12[c]	−4.3	
Galesburg	$ 257	8,602	$ 3,768		n.a.	$ 35
Percentage change from Mar., 1957	−53.9	+0.7	−6.1	n.a.		+2.0
Percentage change from Apr., 1956	−41.5	+9.7	+2.8			
Peoria	$3,445	54,074[c]	$17,281		$ 230	$ 260
Percentage change from Mar., 1957	+670.7	+3.4	+5.7	+11[c]	+2.9	+10.5
Percentage change from Apr., 1956	+443.4	+9.0	+9.3	+3[c]	+3.6	
Quincy	$ 875	9,999	$ 4,370		$ 43	$ 66
Percentage change from Mar., 1957	+316.7	+8.4	−0.6	+28	+6.0	−3.3
Percentage change from Apr., 1956	+224.1	+8.3	+2.8	+9	+10.3	
Springfield	$ 416	32,301[c]	$12,934		$ 122	$ 217
Percentage change from Mar., 1957	+2.7	−0.1	+4.3	+15[c]	+2.6	−14.8
Percentage change from Apr., 1956	+39.6	+4.7	+8.5	+10[c]	+11.1	
SOUTHERN ILLINOIS						
East St. Louis	n.a.	11,129	$ 8,039		$ 152	$ 51
Percentage change from Mar., 1957		−2.5	−7.1	n.a.	+6.6	−9.4
Percentage change from Apr., 1956		−11.1	+1.5		+9.0	
Alton	$ 199	13,624	$ 4,224		$ 39	$ 31
Percentage change from Mar., 1957	−56.6	−5.1	−5.3	n.a.	+1.1	−6.6
Percentage change from Apr., 1956	−16.7	+6.9	−4.3		+2.5	
Belleville	$ 774	7,765	$ 4,144		n.a.	$ 40
Percentage change from Mar., 1957	+779.5	+2.6	−3.1	n.a.		+1.5
Percentage change from Apr., 1956	+187.7	+17.2	+5.3			

[a] Total for cities listed. [b] Includes East Moline. [c] Includes immediately surrounding territory. n.a. Not available.

Sources: [1] U. S. Bureau of Labor Statistics. Data include Federal construction projects. [2] Local power companies. [3] Data for February, 1957. Comparisons relate to January, 1957, and February, 1956. [4] Research Departments of Federal Reserve Banks in Seventh (Chicago) and Eighth (St. Louis) Districts. Department store sales percentages rounded by original sources. [5] Local post office reports. Four-week accounting period ending April 5, 1957.

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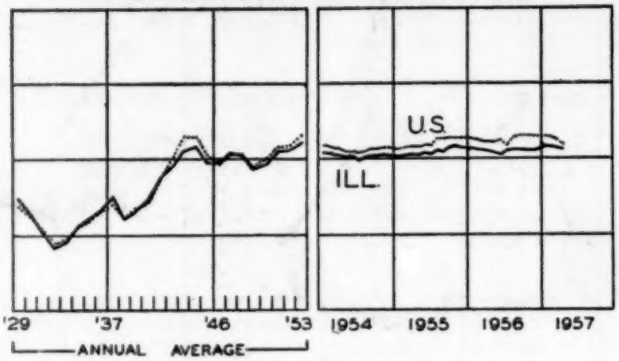
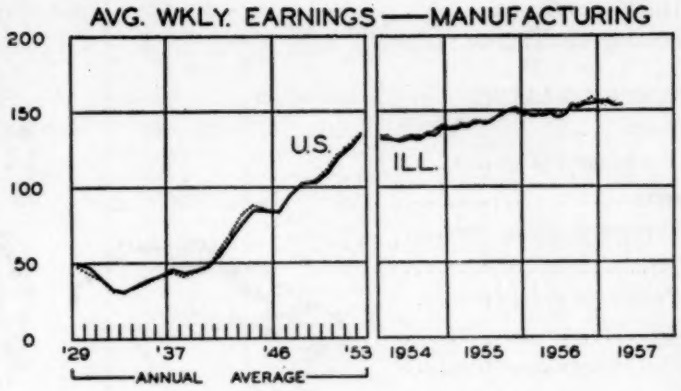
INDEXES OF BUSINESS ACTIVITY

1947-1949 = 100

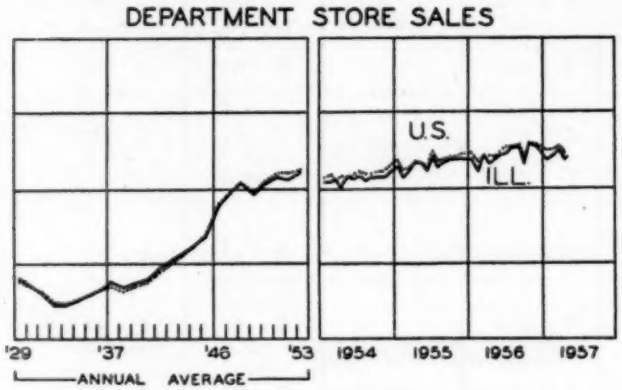
EMPLOYMENT-MANUFACTURING



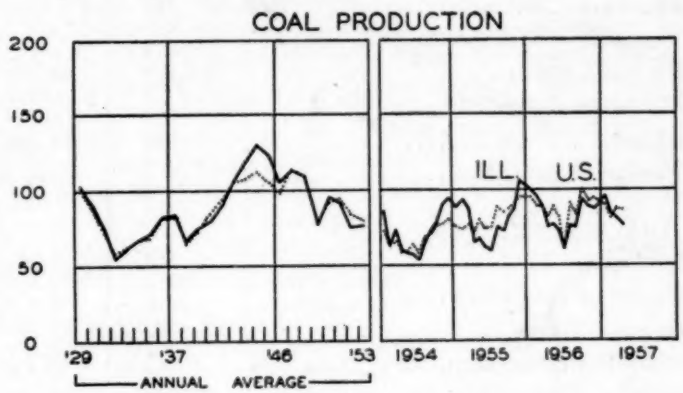
AVG. WKLY. EARNINGS — MANUFACTURING



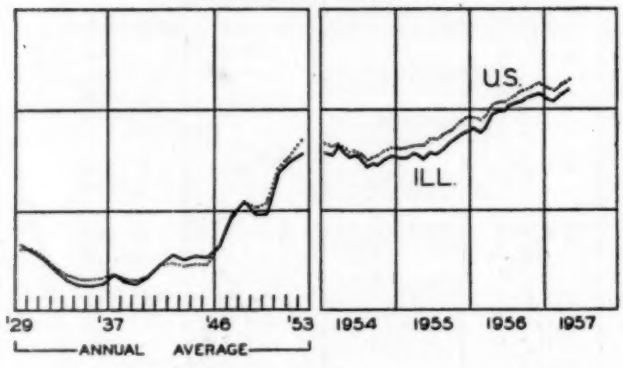
DEPARTMENT STORE SALES



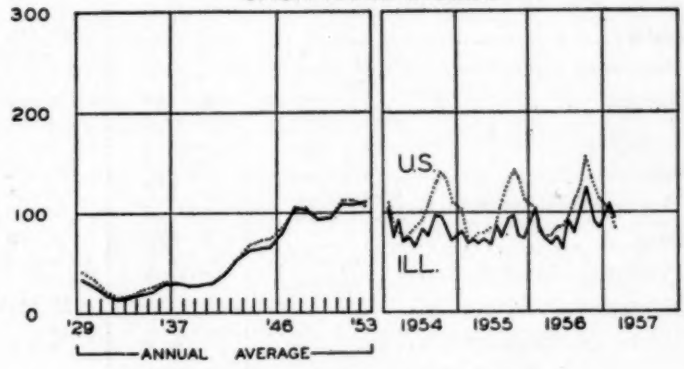
COAL PRODUCTION



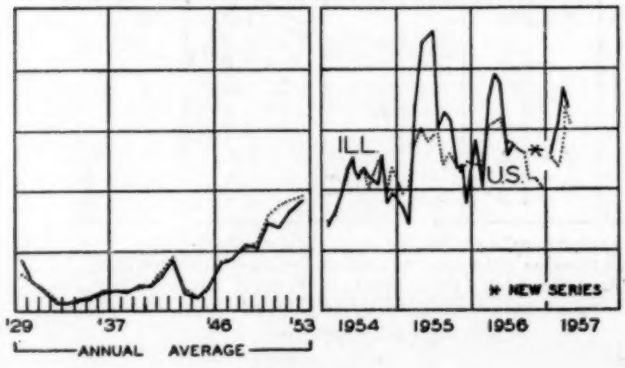
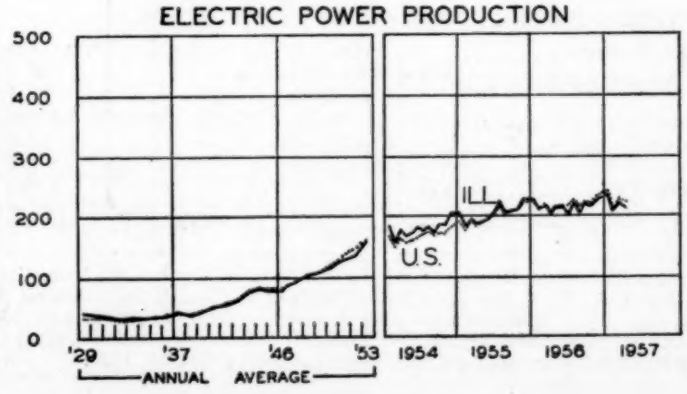
BUSINESS LOANS



CASH FARM INCOME



CONSTRUCTION CONTRACTS AWARDED



ELECTRIC POWER PRODUCTION